

2301

XEROX DISCLOSURE JOURNAL

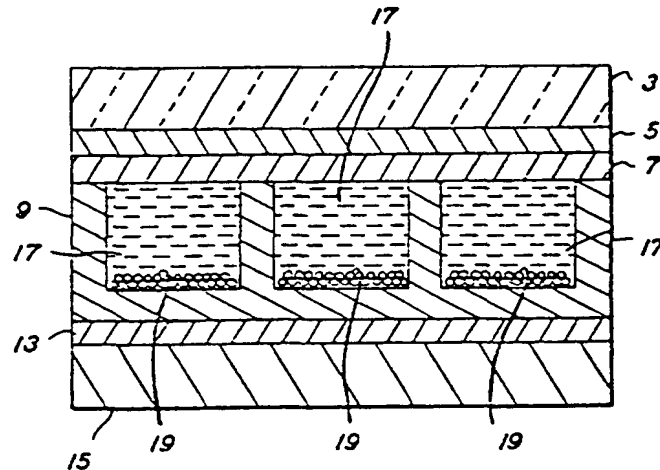
7-21-1974
G03G 17/04

XP-002123212

SUBDIVIDED ELECTROPHORETIC DISPLAY

John R. Harbour
Michael A. Hopper
Vladimir Novotny

Proposed Classification
U.S. Cl. 96/1
Int. Cl. G03g



NO 16-1974
705 = 1

The imaging area of an electrophoretic display device is subdivided into cells, each of which represent one imaging element. The particles confined in each cell can settle only locally and redispersion with high-frequency, varying electrical fields is possible. The height of the cell is at least 20 microns, and the ratio of the cell dimensions to the cell height is in the range of from about 3-5x. An illustration of such a cell is provided in the figure wherein cell 1 comprises a transparent viewing plate 3, a transparent electrode 5, one optional blocking layer 7, a subdivided structure 9, and electrode 13 on supporting base 15. An electrophoretic display imaging medium fills each of cells 17 containing a dyed liquid and particles 19. The cells, as illustrated in the figure, can be prepared with a photoresist material as described in U.S. Patent 3,885,964 to Nacci.